UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,941	09/28/2005	Bjorn Landfeldt	P17716-US2	4612

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EXAMINER
EMDADI, KEYVAN

ART UNIT	PAPER NUMBER
2448	

NOTIFICATION DATE	DELIVERY MODE
10/20/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/550,941	LANDFELDT ET AL.
	Examiner	**Art Unit**	
	KEYVAN EMDADI	2448	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 July 2010</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-24</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-24</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>8/8/03</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

RESPONSE TO AMENDMENT

1.   This is responsive to the communication filed on 7/26/2010. Claims 1-24
        represented "method and system for centrally allocating addresses and
        port numbers"

2.   Claims 1-4, 6-12, 14-20, 22-24 are amended.

3.   Claims 1-24 are rejected.

Drawings

4.   Drawings filed on 8/8/2003 have been acknowledged by the
        examiner.

Claim Rejections – 35 USC 102

5.   The following is a quotation of the appropriate paragraphs of 35
        U.S.C. 102 that   form the basis for the rejections under this section made
        in this Office action:

   A person shall be entitled to a patent unless –
   (b) the invention was patented or described in a printed publication in this or a foreign country or in public
   use or on sale in this country, more than one year prior to the date of application for patent in the United
   States.

6.   Claims 1-3,7-11,15,16-17,19-20,23 are rejected under 35 U.S.C. 102(e)
        as being anticipated by Watson (US Pat. No. US 7,246,166 B1).

As per claims 1, 9, 16, 23 Watson discloses:

**- A method/system/device/computer program for enabling establishment
of a connection between a node of a private domain and a node of a public
domain through an intermediate communication gateway having a pool of**

public domain gateway addresses for public domain representation of private domain nodes, said method comprising the steps of:

- centrally allocating by the intermediate communication gateway, in response to a configuration request initiated from the private domain node, a public domain gateway address from said pool of gateway addresses and a private domain port number for said private domain node,

(Watson, col. 4, lines 50-60, and fig. 4) NAT 1 receives a call setup request from terminal A and creates a binding between address x of a port on the NAT and terminal A, where address x is an address within domain D2, is arranged to forward to terminal A in domain D1.

- wherein said step of centrally allocating comprises the step of identifying, based on predetermined connection information derivable from said configuration request, an public domain gateway address and a private domain node port number that in combination with said predetermined connection information define a public domain gateway state representation that has no counterpart in any existing gateway connection state;

(Watson, col. 4, lines 50-60, and fig. 4) As a result of receiving a configuration request, NAT1 creates a unique mapping between the private address x and a port number on NAT1 that forwards to a terminal A in domain D1.

- initiating establishment of said connection by the intermediate communication gateway at least partly based on the allocated public domain gateway address and private domain port number,

(Watson, col. 4, lines 60-67, and fig. 1) Once NAT 1 has modified the call set-up message, it forwards that message to NAT 2 and from NAT2 to user B based on the allocated public domain gateway address and private port number.

- and transmitting the allocated public domain gateway address and private domain port number from the intermediate communication gateway to the requesting private domain node in a configuration reply.

(Watson, col. 5, lines 60-65, and fig. 4, col. 1, lines 30-40) NAT 2 extracts the previous address D1:a and sets up a direct path from user B to D1. A media path is set up from the destination party to the originating party that would include the configuration in every reply message in the headers of said reply messages.

As per claims 2, 10, 17 Watson discloses:

- The method/system according to claim 1, wherein said predetermined connection information includes at least one of public domain node address information and public domain node port information.

(Watson, col. 4, lines 50-60, and fig. 1) the predetermined connection information includes a public address and associated port information.

As per claims 3, 11, 19, Watson discloses:

- The method/system/device according to claim 1, wherein a gateway connection state is established in said gateway based on said public domain gateway state representation and a representation of a private domain routing path between said gateway and said private domain node.

(Watson, col. 4, lines 20-55, and fig. 1) the gateway connection state is established based on public domain gateway representation and a private domain routing path between the gateway and the private domain node.

As per claim 7 Watson discloses:

- The method according to claim 1, further comprising the step of the private domain node configuring a communication interface according to

said allocated public domain gateway address and private domain node
port number.

(Watson, col. 4, lines 60-67, and fig. 1) NAT 1 modifies the call set-up message
and forwards it message to NAT 2 and from NAT2 to user B based on the
allocated public domain gateway address and private port number.

As per claims 8, 15 Watson discloses:

- The method/system according to claim 1, further comprising the step of
establishing a private domain routing path between said gateway and said
private domain node.

(Watson, col. 2, lines 5-30, and fig. 1) A routing path is established between the
gateway and the private domain node.

As per claim 9, 20 Johnson discloses:

- The system/device according to claim 16, wherein said allocating means
performs allocation in response to a configuration request initiated from
the private domain node, and said transmitting means transmits the
allocated public domain gateway address and private domain port number
to the private domain node in a configuration reply.

(Watson, col. 5, lines 35-65, fig. 2 and 4) NAT receives the call set up message
and creates a binding between an address of a port on the NAT and terminal A
which becomes the new transport address in the set up message.

Claim Rejections – 35 USC 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 4-6, 12, 13, 14, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watson et al. Watson (US Pat. No. US 7,246,166 B1).in view of Alkhatib (Pub no. US 2002/0184390 A1).

As per claim 4 claim 1 is incorporated, Watson does not specifically teach **wherein the allocated public domain gateway address and private domain node port number are represented by an allocated socket network address and a source port number, and the predetermined connection information includes a destination network address and a destination port number, and the public domain gateway state representation is defined by a unique set of socket parameters including the allocated socket domain address and source port number, the destination network address and the destination port number.** However Alkhatib teaches **wherein the allocated public domain gateway address and private domain node port number are represented by an allocated socket network address and a source port number, and the predetermined connection information includes a destination network address and a destination port number, and the public domain gateway state representation is defined by a unique set of socket parameters including the allocated socket domain address and source port number, the destination network address and the destination port number** in the analogous art.

(Alkhatib paragraph 45 10-14) socket addresses are used to make a connection.

It would have been obvious to one skilled in the art at the time of invention to incorporate the capability to represent socket network addresses and port numbers into the invention described by Watson to have the flexibility to use sockets to represent ports and network addresses.

As per claim 5 claim 1 is incorporated, Watson does not specifically teach wherein said configuration reply is a DNS (Domain Name Server) reply. However Alkhatib discloses the claim limitation **wherein said configuration reply is a DNS (Domain Name Server) reply.** (Alkhatib paragraph 45 10-14) the operating system receives a reply from a DNS server.

It would have been obvious to one skilled in the art at the time of invention to incorporate the DNS server into the invention described by Watson to have the flexibility to have a DNS server in the network.

As per claim 6, claim 5 is incorporated, Watson does not specifically teach wherein said allocated public domain gateway address and private domain node port number are conveyed in a dedicated DNS record in said DNS reply. However Alkhatib teaches **wherein said allocated public domain gateway address and private domain node port number are conveyed in a dedicated DNS record in said DNS reply** in the analogous art. (Alkhatib paragraph 45, lines 21-26) the operating system retrieves a domain name from a DNS server through reverse DNS lookup, the TRACERT command can easily be used to determine the gateway(s) and nodes once the domain is retrieved.

It would have been obvious to one skilled in the art at the time of invention to incorporate the DNS reply that enables the determination of the gateway(s) and node information into the invention described by Watson to gain the benefit of having access to said information.

As per the system claims 12-14, these do not teach or define any new limitations above method claims 4-6 and are rejected for similar reasons.

As per claim 18, it does not teach or define any new limitations above claim 4 and is rejected for similar reasons.

As per claim 21-22 they do not teach or define any new limitations above claims 5-6 and is rejected for similar reasons.

As per claim 24, Watson discloses:
- a private domain communication terminal arranged for communication with any of a number of public domain hosts via a communication gateway having a pool of public domain gateway addresses for enabling public domain representation of inside realm communication terminals, said communication terminal comprising:

> **- means for configuring a communication interface according to said outside- realm gateway address and said terminal port number.**
> (Watson, col. 4, lines 50-55, and fig. 1) NAT 1 receives the call set up request and creates a binding between a port number and an outside-realm gateway address.
> **- means for requesting from the communication gateway, central configuration for communication with a selected one of the public domain hosts, wherein the central configuration information is centrally allocated by the communication gateway; means for receiving a configuration reply including a centrally allocated public domain gateway address and a centrally allocated private domain terminal port number, said allocated public domain gateway address and said allocated terminal port number.**
> (Watson, col. 4, lines 50-60, and fig. 4) NAT 1 receives a call setup request from terminal A and creates a binding between address x of a port on the NAT and terminal A, where address x is an address within domain D2, is arranged to forward to terminal A in domain D1.
> **Watson does not specifically teach:**
> **- in a modified DNS (Domain Name Server) query...DNS...being arranged in a dedicated DNS record in said configuration reply.**

However Alkhatib teaches **in a modified DNS (Domain Name Server) query...DNS...being arranged in a dedicated DNS record in said configuration reply** in the analogous art.

(Alkhatib paragraph 61) requests queries are made of the described DNS server.

Therefor, it would have been obvious to one skilled in the art to combine this DNS query type configuration request capability into the invention described by Watson in to gain the ability to perform configurations via a DNS query.

Response to Arguments

9.   Applicants arguments, filed 7/26/10 with respect to the Biswas reference not qualifying as valid prior art have been fully considered and are persuasive, these rejections have been withdrawn. However, upon further consideration, a new 35 U.S.C. 102(e) grounds of rejection has been made in view of Watson (US Pat. No. US 7,246,166 B1).

Conclusion

10.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply

expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier

communications from the examiner should be directed to KEYVAN

EMDADI whose telephone number is (571)270-7320. The

examiner can normally be reached on Monday-Thursday 7:30AM to

5:30PM EST, Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful,

the examiner's supervisor, Firmin Backer can be reached on 571-272-703.

The fax phone number for the organization where this application or

proceeding is assigned is 571-273-6703.

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status

information for published applications may be obtained from either Private

PAIR or Public PAIR. Status information for unpublished applications is

available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on

access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from

a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-

1000.

/KEYVAN EMDADI/

Examiner, Art Unit 2448

Date: October 14, 2010

/FIRMIN BACKER/

Supervisory Patent Examiner, Art Unit 2448